

U.S. Patent Application Serial No. 10/790,769  
Amendment filed February 25, 2008  
Reply to OA dated September 25, 2007

### **REMARKS**

Claims 2 - 13 are currently pending in this patent application, claims 10 and 13 being independent claims. Claim 1 has been canceled without prejudice or disclaimer.

Claim 10 has been amended in order to more particularly point out, and distinctly claim the subject matter to which the applicants regard as their invention. The applicants respectfully submit that no new matter has been added. It is believed that this Amendment is fully responsive to the Office Action dated September 25, 2007.

Support for the claim amendments can be found in the applicants' Figures 1A and 1B, and on page 14 (line 15), page 15 (line 11), and page 10 (lines 2 - 28) of the applicants' specification.

As to the merits of this case, pending claims 2 - 11 and 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over the so-called "admitted Prior Art" in view of Park (U.S. Patent No. 6,850,128) in view of Choudhury (U.S. Patent No. 4,985,400). Also, claim 12 is rejected as being unpatentable over the "admitted Prior Art" in view of Park, Choudhury, and the Shen article.

The applicants respectfully request reconsideration of these rejections.

It is noted that this rejection has been changed from that last mailed on February 9, 2007. Tsai et al. is no longer used as the secondary reference and has been replaced by Park.

According to the applicants' instant claimed invention, a superconductive high frequency signal transferring/receiving circuit with an antenna can be constituted by a sterically effective arrangement. As a result, an effective area of the antenna can be increased as compared to a circuit consisting only of a planar superconductive high frequency circuit. Since a transmission of the signal between the circuit and the antenna is carried out by electromagnetic coupling, a superconductive high frequency circuit can be coupled with the antenna without an influence by Joule heat resulting from a resistance at an electric connection by wire bonding, tape bonding or solder.

In addition, an impedance matching with a low path loss between the antenna and the high frequency circuit can be realized by controlling the electromagnetic coupling. Further, it is possible to realize low noise upon receiving a signal and high effective power operation upon transmitting a signal.

In the applicants' instant claimed invention, a superconductive high frequency circuit is sterically arranged with respect to an antenna using electromagnetic coupling via a dielectric body within a metal package, which provides sealing and high frequency shielding. As a result, the above advantageous effects or benefits of the applicants claimed invention become possible.

The Examiner has acknowledged that the “admitted Prior Art” does not disclose that the planar antenna and superconductive high frequency circuit are electromagnetically coupled via a space. According to the Examiner, however, Park shows this concept, as well as the basic idea of electromagnetically connecting elements via a space (rather than a direct physical connection) is well known in the art.

Although Park describes an orthogonal electrical coupling relying on electromagnetic coupling, and Choudhury describes a process for producing superconductive ceramis, such references do not describe that a superconductive high frequency circuit formed on a substrate is electromagnetically coupled with an antenna, the substrate being arranged in a perpendicular direction with respect to the antenna. In addition, these references do not describe that electromagnetically coupling between the antenna and the superconductive high frequency circuit is formed within the metal package. Thus, the suggested combination of references fall far short in fully meeting the applicants’ claimed invention, as now recited in the claims filed herewith, based on the cited prior art references, singly or in combination.

The Shen article similarly does not supplement the above-discussed deficiencies in the teachings of Park and Chuodhury in failing to fully meet the applicants’ claimed invention, as now recited in claim 10 from which claim 12 depends.

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Thus, a person of ordinary skill in the art would not have found the applicants' claimed invention, as now recited in the claims filed herewith, based on the teachings of the cited prior art references, singly or in combination.

In view of the above, the withdrawal of the outstanding obviousness rejection under 35 U.S.C. §103(a) based on the so-called "admitted Prior Art" in view of Park (U.S. Patent No. 6,850,128) in view of Choudhury (U.S. Patent No. 4,985,400), and the outstanding obviousness rejection 35 U.S.C. §103(a) based on the "admitted Prior Art" in view of Park, Choudhury, and the Shen article is in order, and is therefore respectfully solicited.

In view of the aforementioned amendments and accompanying remarks, claims, as amended, are in condition for allowance, which action, at an early date, is requested.

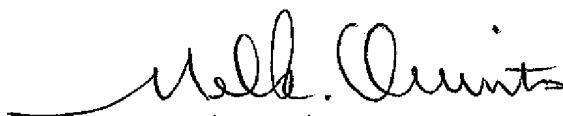
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosure: Petition for Extension of Time (2 months).